

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number  
**WO 2005/071114 A1**

(51) International Patent Classification<sup>7</sup>:

C12Q 1/68

(21) International Application Number:

PCT/US2005/001419

(22) International Filing Date: 14 January 2005 (14.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/537,463 15 January 2004 (15.01.2004) US

(71) Applicant (for all designated States except US): THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF [US/US]; National Institutes of Health, Office of Technology Transfer, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852-3804 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DOGULU, Cigdem, F. [TR/US]; 5160 Pooks Hill Road, Apartment #23, Bethesda, MD 20814 (US). RENNERT, Owen, M. [US/US]; 10300 Bells Mill Terrace, Potomac, MD 20854 (US). CHAN, Wai-Yee [US/US]; 10708 Butterfly Court, North Potomac, MD 20878 (US).

(74) Agent: RYBAK, Sheree, Lynn; Klarquist, Sparkman, LLP, One World Trade Center, Suite 1600, 121 SW Salmon Street, Portland, OR 97204 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/071114 A1

(54) Title: METHOD EVOLVED FOR RECOGNITION OF THROMBOPHILIA (MERT)

(57) **Abstract:** Methods for predicting an individual's genetic risk for developing venous thrombosis in diverse ethnic populations is disclosed, as are arrays and kits which can be used to practice the method. The method includes screening for mutations, polymorphisms, or both, in at least eight venous thrombosis-related molecules, such as antithrombin III, protein C, protein S, fibrinogen, factor V, prothrombin (factor II), methylenetetrahydrofolate reductase (MTHFR), and angiotensin I-converting enzyme (ACE) molecules which are associated with venous thrombosis.